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Cc: []
Bcc: []
From: CN=Tina Laidlaw/OU=MO/OU=R8/O=USEPA/C=US
Sent: Tue 1/22/2013 10:58:03 PM
Subject: edits
[Nutrient Response to Comments 01 22 13 TL edits.docx](#)
[League Comments.doc](#)
[\(embedded image\)](#)

George,

Attached are my edits to the first part of the document. I know we want to focus on responses to the League's comments but I figured I'd try to at least get through section #1. See what you think. Also, to help you understand what edits I made, I've attached a table. Table 1 summarizes all of my edits, with yellow highlights for ones that relate to the League Comments. Table 2 summarizes the comments (now numbered) for each issue raised by the League. I'm hoping the responses are in decent enough shape that you can email them to Dave and Amanda in preparation for Thursday's call. Also, one note -- The League's comment on adaptive management is confusing to me. Please pay close attention to my edits to Response #21 to make sure you agree with it.

I hope this is helpful. I'll continue to work through the other sections to help reduce impacts on your time and to keep things moving.

Hope you are having a good week!

Tina

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COMMENTS RECEIVED IN JULY AND AUGUST 2012 ON THE DRAFT NUMERIC NUTRIENT STANDARDS PACKAGE

General Comments

1. Comment: A severability clause will be included

Response: The department agrees that the nutrient criteria and the variance process are to be adopted and remain together. Therefore, a severability clause has been added to the draft rule package.

2. Comment: Section 2.1 of Part B, wastewater optimization study-language should be added to address private facilities

Response: Bullet 1 and 3 apply equally to municipal and private facilities. If additional language is requested, please provide ideas.

3. Comment: Adaptive management

Response: The essence of adaptive management is to establish criteria, emplace controls, monitor the results (for both river biological response and criteria attainment), and then re-evaluate the criteria with the data in hand. One way the department has addressed adaptive management was by updating the rule package to include the option to model a reach of stream. The modeling approach would determine if reducing a single nutrient may achieve the same desired biological and water-quality endpoints as equal emphasis on reducing both nitrogen and phosphorus. Consideration of the effect of the non-target nutrient on downstream waterbodies and beneficial uses would be a required part of this analysis. If single-nutrient modeling results are approved by the Department, the facility may apply for an individual variance that emphasizes reduction of the critical nutrient and that temporary caps future reductions of the other nutrient. Accompanied with stream monitoring, after some years it should be possible to confirm or refute the model's predictions. Updated criteria for the reach can be adapted if warranted.

4. Comment: How significance will be applied at a watershed level / Clarify how TMDL watershed approach determines if a source is-non-significant

(Response). The significance/non-significance of a point source in a watershed will be addressed on a case-by-case basis in the TMDL, and will vary according to whether the stream reach into which the facility discharges (a) is impaired for nutrients, (b) is not impaired for nutrients but may be a contributor to a downstream nutrient-impaired reach, or (c) has become unimpaired for nutrients due to upstream load reductions. The department has added draft rule language stating that when approved TMDLs determine a waste load allocation is not needed for a specific discharger, than that discharger would not need a variance as the water quality standards would be met. This would result in a requirement that the discharger maintain its current nutrient limits. The department welcomes additional input and or charges as needed to satisfy the adaptive management process.

5. Comment: Clarify how TN and TP will be addressed separately

Response: Regarding variances, the department will allow nitrogen and phosphorus to be addressed individually. For example, a Permittee could have a general variance for total nitrogen (TN) but may be able to meet the total phosphorus (TP) criterion and, thus, would not need a TP variance. Similarly, a Permittee could be operating under a TP general variance but have an individual variance for TN set at a higher concentration than the TN general variance.

Studies conducted by the department have demonstrated that both nitrogen and phosphorus criteria are essential and that control of both N and P is necessary to achieve full support of beneficial uses in rivers and streams. Dual nutrient control is well supported in the peer-reviewed scientific literature. It is also supported by long-term monitoring results from the Clark Fork River where reduction of both nitrogen and phosphorus has been undertaken for many years and these efforts are achieving the biological goals in reaches of the river. This does not, however, preclude the possibility of further refinement of the criteria on a stream- or reach-specific scale.

6. Comment: What impact will there be on the current Department workload regarding the processing of variance applications?

Response: The vast majority of cases will be general variances, will be processed by Permitting, and should not lead to significant impact on staff time or cost. Economic- impact based individual variances can be completed by applicants using DEQ's existing spreadsheet and need then only be reviewed by DEQ. Mechanistic model-based individual variances will require time from Standards and Modeling staff to review. Staff is available for such work, and it is expected that model scenarios will be reviewed more quickly after one or two have been undertaken.

7. Comment: Explain the role of the 1995 EPA guidance

Response: With the adoption of SB 367 and the creation of general variance categories, the 1995 EPA guidance will be used only for individual variances pursued by Permittees who are demonstrating substantial and widespread economic impacts resulting from meeting the general variance concentrations. (Note that the 1995 EPA guidance does not apply to individual variances based on water quality modeling.) A Montana-modified spreadsheet version of the 1995 guidance is complete, and can be used by public sector entities. The public-sector guidance was modified to fit Montana's economic structure by a predecessor advisory group that met in 2008-9 and which was similar to the Nutrient Work Group. Additionally, we expect most of the dischargers to use the general variance, and the economic demonstration for private industries has already been completed for those purposes.

In the rare cases where a private discharger will apply for an individual variance, the department is committed to exploring the same types of options used in the statewide demonstration. Additionally, for the private sector, the 1995 guidance provides a framework for assessing profitability, etc., and the department can consider plant-specific data per earlier EPA guidance on the topic. The actual level of nutrient removal then required of a private-sector recipient of an individual variance would be determined by consultation between DEQ and the facility operator. The department has modified

language in our guidance document clarifying that EPA's 1995 guidance is simply one approach for conducting the economic analysis for private sector facilities, should that analysis be needed.

8. Comment: Mining industry concern in meeting criteria and nondegradation / Nondeg's role in existing sources, increased sources, and new point sources

Response:

DEQ is continuing to explore all avenues related to nutrients and the nondegradation evaluation process, including hiring a consultant with extensive experience with this topic. The consultant is preparing a final report for DEQ that will present possible solutions for addressing nondegradation. DEQ expects to receive the final report by the end of January 2013.

9. Comment: Forestry concern over roads becoming point sources

Response: Still being resolved in the courts. However, it would probably be safe to assume that SMZs and proper road BMPs may be part of any future permits if the courts consider roads point sources. This would primarily affect TP standards, as the linkage between TP and forest roads is via fine-sediment runoff.

10. Comment: The economic test for individual variances should rely on statewide economic analysis

Response: The underlying economic analysis for all dischargers (both public and private) was completed at a statewide scale. This analysis demonstrated that all dischargers are eligible to receive a variance based on economic impacts. The general variance treatment levels were set at levels deemed, on average, to be affordable at the statewide level, and are available to all. In cases where an individual variance is requested, the statewide economic demonstration can provide the justification for the variance. In lieu of the general variance treatment levels, variance treatment levels for an individual variance reflect the individual community or company information.

11. Comment: Biological confirmation

Response: The League expressed interest in the use of biological confirmation as a test before a discharger would be required to treat to a lower variance level. DEQ welcomes the opportunity to discuss this idea further with the League and has made strides at incorporating some of the concepts into the updated rule language. For example, New Rule 1 (3) allows for a higher variance limit in situations where modeling shows that reducing a single nutrient may achieve the same desired biological and water-quality endpoints as equal emphasis on reducing both nitrogen and phosphorus. (See Response to Comment #3). Additionally, in situations where available biological data demonstrate the use is being supported, DEQ developed a template that could be used by dischargers to collect data to derive reach-specific criteria. Other options for consideration include flexibilities that may be afforded to the discharger through the permitting process while studies are being conducted.

DEQ welcomes continued dialogue on this topic to ensure the final product addresses stakeholder concerns.

12. Comment: The application of the 95% percentile of the effluent is too strict

Response: The use of the 95th percentile is consistent with permit development for chronic water quality standards (and not just toxic compounds) and assures that DEQ writes permits that the Permittee can consistently achieve in a regulatory environment. Permits written to the 50th percentile of the effluent, for example, would be exceeded during compliance monitoring roughly half of the time and lead to constant violations. As a point of clarification, DEQ is not requiring that upstream water quality (used for dilution calculations) be characterized using the 95th percentile; this is now explicit in draft DEQ-12.

13. Comment: NonDeg and non-point sources, how would this rule package affect non-point sources?

Response: Nonpoint sources remain unregulated and continue to be addressed via voluntary means and programs (DEQ's 319 grants, for example). However, DEQ will continue to work towards reductions in nonpoint source nutrient loads. Examples of DEQ's activities to address nonpoint source nutrient pollution include: a) development of a nutrient trading (DEQ-13) program that encourages trading between point and nonpoint sources; b) development of a phosphorus ban that will go into effect across Montana once numeric nutrient criteria are adopted; and c) ongoing efforts to target funding available from other agencies (e.g., NRCS, Dept. of Ag, USFS) to implement nutrient-related BMPs.

growth), the effluent limits are recalculated based on the increased flow, resulting in lower effluent limits.

14. Comment: Cost of implementation has not been fully addressed

Response: DEQ has completed two detailed cost analyses that consider the financial impact of meeting the standards today, for both the public and private sector. These are available on the DEQ's website at:

<http://deq.mt.gov/wqinfo/NutrientWorkGroup/default.mcp>

DEQ recognizes that the cost of implementation over the next 20+ years is difficult to predict. However, DEQ's process is set up to assure that changes in expectations for nutrient removal move in tandem with technological improvements and associated cost reductions. Thus, achieving the criteria will continue to follow a trajectory that assures that the cost to achieve the criteria remains reasonable for Montana citizens.

15. Comment: What about disclosure of private industry's financial records?

Response: One of SB367's purposes was to preclude, in almost all cases, the need for private companies to seek individual variances and disclose financial records. DEQ anticipates that most private facilities will request a general variance and will not need to submit any financial records since the economic demonstration was completed for all dischargers. However, in those unusual cases where a private sector party may need an economic affordability-based individual variance, there also exists the possibility that EPA could hold the financial information and not disclose it, and then run the assessment process on behalf of DEQ. In addition, DEQ expects that DEQ and the Nutrient Workgroup will collaborate to resolve any difficult issues that arise in the future.

16. Comment: SB 367 Directs the Department to use Variances (implies that a variance should apply to Nondeg)

Response: DEQ continues to explore all avenues related to nutrients and the nondegradation evaluation process, including hiring a consultant with extensive experience with this topic. The consultant is preparing a final report for DEQ that will present possible solutions for addressing nondegradation. DEQ expects to receive the final report by the end of January 2013.

17. Comment: How are “TMDL standards” affected by the variance process?

Response: TMDLs do not develop standards, they apply them. The TMDL is written to the standard. If a variance is granted for a discharger, the effluent limits authorized in the variance will supersede the TMDL’s WLA.

18. Comment: Draft Drumlummon application of non-degradation

Response: All water quality based effluent limits in the draft Drumlummon permit were based on the application of the nonsignificance criteria given in ARM 17.30.715, that is, protection of existing water quality (Tier 2).

19. Comment: How will the new criteria affect the 303(d) list?

Response: In all probability there will be fewer streams listed for nutrients than in the past, and a number of those currently listed will be found not to be nutrient impaired. DEQ has developed a solid understanding of what natural background nutrient concentrations look like across the state, as well as what harm to use looks like, and unbiased estimates indicate that 70-90% (depending on the nutrient) of the stream miles in the state meet the proposed criteria right now. DEQ’s new assessment process for nutrients considers multiple lines of evidence and this process was well received during the public comment period (including comments from members of the Nutrient Work Group).

20. Comment: Will the new criteria increase the TMDL workload?

Response: No, in fact they will likely reduce it. One of the main attractions of the numeric standards is that they preclude, in most cases, the need for site-by-site and case-by-case interpretation by TMDL staff. DEQ’s TMDL program has and does apply the narrative standards applicable to nutrients (e.g., ARM 17.30.637[1][e]), and the numeric criteria will preclude the need for case-by-case interpretations.

21. Comment: Provide case study for how adaptive management Section 4.1 would be used (“result in significant environmental improvement and progress towards attaining standards”)

Response: During the September nutrient workgroup meeting, DEQ shared several case studies to demonstrate the variance process and the implications for dischargers. We recognize that a case study focused on “adaptive management” was not included in the set of examples. However, before providing an example, it would be helpful for the League to clarify their expectations for “adaptive management”. The comments submitted by the League seem to suggest that adaptive management is similar to

biological confirmation. We look forward to discussing this concern in more detail with the League to ensure we understand the adaptive management concepts. After those discussions, if a case study is still needed, DEQ will prepare a case study to share with the Nutrient Workgroup.

22. Comment: A scoping statement would be appropriate in the General Introduction section (of the circular) and the rules themselves to confirm that nothing in either is intended to empower DEQ to act in excess of the authority set forth in the statutory provisions enacted through Senate Bill 367.

Response: In compliance with the Clean Water Act (CWA), the Montana Legislature has designated the DEQ as the state agency responsible for regulation of point-source discharges of pollutants in Montana. See § 75-5-211, MCA. Similarly, the Board of Environmental Review (BER) is the designated rulemaking body for water quality regulations in Montana. See § 75-5-201, -301, MCA. Consistent with the mandates of the CWA, the BER is statutorily required to adopt water quality standards. See § 75-5-301(2), MCA. No further statement is necessary regarding the scope of the rules proposed in DEQ-12.

2. Comments Pertaining to Part B of Draft Circular DEQ-12 (v 6.4)

23. Comment: In Section 1.0 of Part B of the Circular, the language at the end of the section should be revised to read “cannot be achieved because of economic impacts, the limits of technology, or both”.

Response: DEQ agrees that with the recommended change and will include it.

24. Comment: Table 12B-1 of Part B should be revised to reflect the language of 75-5-313(5)(b), which refers to a monthly average, not a long-term average.

Response:.

25. Comment: Section 2.0, the end of the first sentence of the first paragraph should be revised to “a permittee who meets the end-of-pipe treatment requirements provided below in Table 12B-1 may apply for and DEQ shall approve a general nutrient standards variance.” Revision necessary to be consistence with 75-5-313(5)(a) and (b).

Response: DEQ agrees with the comment and will make the change.

26. Comment: Section 2.0, “A person” should be modified to “An entity” in the first paragraph.

Response: Person is the appropriate term according to statute, both general and specific to water quality:

1-1-201. Terms of wide applicability.

(1) Unless the context requires otherwise, the following definitions apply in the Montana Code Annotated:

(b) "**Person**" includes a corporation or other entity as well as a natural **person**.

TITLE 75 ENVIRONMENTAL PROTECTION
CHAPTER 5 WATER QUALITY
PART 1 GENERAL PROVISIONS

75-5-103 (Temporary) Definitions.

Unless the context requires otherwise, in this chapter, the following definitions apply:

(28) "Person" means the state, a political subdivision of the state, institution, firm, corporation, partnership, individual, or other entity and includes persons resident in Canada.

27. Comment: Section 2.0, the beginning of the last sentence of paragraph one should be modified to read "If, after May 31, 2016, a permittee is not eligible for a general variance, if necessary for the permittee to achieve compliance with numeric nutrient standards, the permittee may seek a compliance schedule to meet the treatment requirements shown in Table 12B-1."

Response: This text change request does not make sense to DEQ. State statute is clear that a person requesting a general variance and who can meet the defined treatment levels is eligible. The recommended text change could be construed to mean that a compliance schedule that would lead to meeting the end-of-pipe values in Table 12B-1 equates to compliance with the base numeric nutrient standards, which is not the case. The intent of the last sentence of paragraph one in DEQ-12 was simply to indicate that moving from current treatment levels to general variance levels (or revised general variance levels) may take a permittee some time, and this can be allowed for in a compliance schedule.

Comment: In the second paragraph of section 2.0 in the third sentence, "the" should be inserted in front of "statute" and "contemplates" should replace "indicates".

Response: DEQ agrees with the comment and will make the change.

Comment: In the third paragraph of section 2.0 in the second to last sentence, ", after May 2016", should be inserted after "If".

Response: DEQ agrees with the comment and will make the change.

Comment: In the fourth paragraph of section 2.0, "specific factors" is not adequately precise. MPA recommends that this language be modified to read "specified factors, listed below in this paragraph."

Response: DEQ agrees with the comment and will make the change.

Comment: The second sentence of the 4th paragraph of section 2.0 should read, "The review will not

take place before June 1, 2016, and will occur triennially thereafter.” MPA is unclear what DEQ means when it states “and will be carried out at a fairly coarse level (i.e., statewide). We recommend further discussion on the intent of this language, but support inclusion of modified text.

Response: DEQ agrees that the June 1, 2016 date is a reasonable interpretation of “Immediately after May 31, 2016” (per 75-5-313[7][a], MCA). DEQ will incorporate the recommended change. By “coarse”, DEQ means the scale of the analysis will be the whole state, not individual counties or facilities. Metrics for Montana’s economic status (statewide median household income, MHI) can be compared to the average estimated cost to install a new nutrient-removal technology, or (for example) compared to the average estimated cost for major facilities (> 1 MGD) to move from WERF level 2 (the general variance level) to WERF level 3. If the cost, on average, is too high relative to statewide MHI (say, greater than 2% MHI) than this would indicate no change in the general variance level is warranted at that time. DEQ is ready to work with the Nutrient Work Group on crafting more specific language, as needed.

Comment: The final paragraph in section 2.0 is lifted from the "conceptual proposal" circulated in an earlier draft. MPA expressed concern about the conceptual proposal at that time. While this language is less objectionable than the earlier draft, it appears to go beyond what Senate Bill 367 requires. It reads: "Only after changes in specified factors had occurred would the general variance treatment requirements be made more stringent. The review will occur triennially and would generally be carried out at a fairly coarse level (i.e., statewide). The Department and the Nutrient Work Group will consider [three listed categories]." This is an area where we cannot improve on the statutory language. MPA recommends inclusion of the language in Mont. Code Ann. 75-5-313(7) instead. It reads: "Immediately after May 31, 2016, and every 3 years thereafter, the department, in consultation with the nutrient work group, shall revisit and update the concentration levels provided in subsection (5)(b). If more cost-effective and efficient treatment technologies are available, the concentration levels provided in subsection (5)(b) must be updated pursuant to subsection (7)(c) to reflect those changes. The updates become effective and may be incorporated into a permit only after a public hearing and adoption by the department under the rulemaking procedures of Title 2, chapter 4, part 3." So, at a minimum, subsection 3 should be deleted because nitrogen or phosphorous speciation and bioavailability may not be considered, particularly depending upon the analysis of the first two criteria listed.

Response: DEQ believes that bullets 1 and 2 fall well within the intent of the statute and 1 essentially paraphrases it. Bullet 2 was addressed above and can be further refined as needed. Bullet 3 (pertaining to speciation) was recommended by wastewater engineers attending Nutrient Work Group meetings but could be removed in the next draft.

Comment: Section 2.1, the second sentence far exceeds the authority provided to DEQ by Senate Bill 367 and should be deleted.

Response: DEQ does not believe anything in statute precludes DEQ from encouraging Permittees from examining a wide range of options and Best Management Practices that could, ultimately, preclude the need for the permittee to need to seek a variance.

Comment: Section 2.1, item 2 in the second paragraph should be changes to “Should not result in rate increases for consumers of local government services or substantial investment by any permittee.”

Response: DEQ believes that a change to “Should not result in waste water rate increases” adequately addresses the issue. There is no requirement that the optimization study be a large investment in time and money, as indicated in the paragraph immediately following the three numbered bullets. The amount of time and money invested in the study is left to the discretion of the Permittee.

Comment: Section 2.1., the sentence on who should do the study is poorly crafted. It would be better to say, “How the analysis is to be conducted and by whom is left to the discretion of the permittee.”

Response: DEQ agrees with the comment and will make the text changes.

Comment: In the first sentence of Section 2.2., “and” needs to be changed to “or”. This language is drawn from 40 CFR 131.10(g)(3), which is in the disjunctive, not the conjunctive.

Response: DEQ has completely reworked the first paragraph of section 2.2 (and the associated rules) to reflect a more practical means by which a Permittee could remain at a previous general variance concentration; as such, the comment is no longer applicable. Going forward, DEQ believes a water quality model (with monitoring verification) indicating greater emphasis on control of one nutrient will achieve comparable results to equal control of both is one pathway to a type of individual variance. DEQ believes this is reasonable because expending money to greatly reduce both nutrients may not be a prudent use of water pollution control dollars and, therefore, constitutes an unnecessary economic impact; this meets the spirit of 75-5-313(1), MCA. DEQ welcomes comments on the updated paragraph, which is available in the next version of the draft circular.

Comment: Section 3.0 pertains to the individual variance process. Language deleted from the previous draft should be reinserted (“Like the general variance in Section 2.0, individual variances may be established for a period not to exceed 20 years and must be reviewed by the Department every three years to ensure that their justification remains valid.”).

Response: DEQ agrees that the earlier text was clear and describes essential aspects of the individual variance well. It will be included in the next draft.

Comment: Section 3.0, in the second paragraph, “as” should be changed to “an”.

Response: DEQ agrees with the comment and will make the text change.

3. Comment Pertaining to the Draft Nutrient Standards Rules (v 7.5)

Comment: On page 1 (Version 7.3), the draft includes the following passage: A permittee who has already received a general variance is not required to further treat the facility's discharge to an updated (lower) general variance concentration adopted by the department if it can be demonstrated that achieving the lower concentration would not result in net environmental improvement, or would not result in material progress towards attaining the base

numeric nutrient standard, and would cause more environmental harm than remaining at the previous general variance concentration.

MPA believes that it is essential to delete the "or" and to change the "and" to an "or". This language is drawn from 40 CFR 131.10(g)(3), which is in the disjunctive, not the conjunctive. MPA also believe that further discussion is necessary on what constitutes a significant or insignificant nutrient load and "material progress" as the terms are used in items 6 and 7 on the first page of the rule. This language is too imprecise.

Response: As noted earlier, DEQ has gotten away from reference to factor 3 of 40 CFR 131.10(g) and is now emphasizing water quality modeling that could lead to an individual variance whose rationale is based on factor 6. See the discussion of this topic in DEQ's response to the comment three positions above this one.

4. Comment Pertaining to the Draft Technical Guidance Document "Carrying Out a Substantial and Widespread Economic Analysis for Individual Nutrient Standards Variance AND Guidelines for Determining if a Wastewater Treatment Facility Can Remain at a Previous General Variance Concentration" (v 7.1)

Comment: On page 5, in Section 3.0 of this document, we recommend substituting "published by the" for "presented in". MPA also believes that the second sentence should end with "facility upgrade to meet numeric nutrient standards will not be required." instead of the language in the current draft.

Response: DEQ agrees with the text change from "presented in" to "published by the", and will make the change. DEQ does not agree with the remaining additional language, as it could be construed to mean that if a private entity shows substantial and widespread economic impact from trying to comply with the numeric nutrient standards, then said entity need never comply with the numeric nutrient standards. Section 3.3 of the document outlines an approach that DEQ anticipates can be undertaken in those cases where a private entity cannot affordably meet the nutrient standards at the time of the permit renewal.

Comment: For section 4.0 on page 8, MPA recommends the addition of "and the Department concludes that they would not have a substantial and widespread economic impact" at the end of the third sentence in the first paragraph. Similar language should be incorporated at the beginning of the second paragraph in section 4.0 to amend the current language ("If more effective and economical technologies are available in 2016 when compared to available technology in 2011 and the Department concludes that incorporation of the technology by permittees in Montana would not have substantial and widespread economic impact, in order to remain at a previous general variance concentration, a permittee will need to demonstrate to the Department that (1) moving to the updated general variance concentration would not result in a net environmental improvement or material progress towards attaining the standards, and (2) it would cause more environmental damage than it. would remedy."). Similar language should be incorporated in Section 4.2.

Response: DEQ agrees with the addition of the text to the end of sentence three of section 4.0 and will add it. DEQ believes that the additional sentences at the beginning of the second paragraph of section 4.0 and 4.2 are reasonable and can be added. DEQ will also revisit the language in (1) of the second paragraph of section 4 (and similar in 4.2) to assure that the text captures the intent of the rules (i.e., modeling showing the stronger limitation of nitrogen or phosphorus).

Comment: The citation in the footnote on page 8 is incorrect. "40 CFR 313 (10)(g)(3)" needs to be changed to "40 CFR 131.10(g)(3)".

Response: Thank you for the correction. Going forward, DEQ does not plan to include this footnote in the next draft of the document.

5. Other Comments

Comment: Permittees continue to be concerned about a lack of clarity on how the base numeric standards are going to be reflected in permits. This concern has animated the debate for a number of years and is likely responsible for the reticence of MPA and others in industry to the adoption of numeric nutrient standards. In your 2010 report to the Environmental Quality Council, you identified this tension and charted a path forward. See Mathieus, Suplee, and Blend, "Final Report To The Environmental Quality Council On Progress Toward Numeric Nutrient Standards For Montana's Surface Waters" (June 25, 2010), p. 9 ("Several Nutrient Work Group members representing the private sector expressed that it is not acceptable for companies to be at risk for non-compliance with an adopted standard, subject only to the uncertain possibility of obtaining a variance from the standard. Overall, the members need to see a case study or two worked through from beginning to end. Starting from the point where an expired permit is reviewed for compliance with the standards, through the alternatives analysis and variance process, and finally to the details of the renewed permit. It is critical that the Department and permittees be able to identify what will be required for compliance under the rule upfront in permitting, and that such compliance be reasonably achievable, before base numeric nutrient standards are adopted."). Although it is clear -- and we understand your position to be that it is clear -- that all permittees will be entitled to a general variance from numeric nutrient standards between now and May 31, 2016, questions about the availability of a general variance between now and 2032 are of significant concern based upon the assumption that technological change will not alter the current calculation that significant and widespread impacts would occur without a variance.

Response: Subsequent to the time that DEQ received this comment (July 18, 2012), DEQ and the Nutrient Work Group have met once (in September 2012) and DEQ presented four case studies— including a private-sector case—covering the permit process, and including variances in renewed permits. DEQ hopes that the examples were able to make the permit process clearer, especially regarding how variances would be incorporated in permits.

Regarding the nature and availability of general variances during the 2016-2032 period in the absence of any low-cost technological breakthroughs (or improved affordability of certain existing technologies), all

DEQ can say at this point is that the general variance concentration requirements would likely remain static; nevertheless, DEQ is receiving pressure from EPA to carefully review the general variance limits for the > 1 MGD category. For lagoons, implementation of BMPs to achieve best-possible nutrient concentrations for that technology has been discussed and has the potential to become a general variance requirement, but this concept needs to be further vetted with engineers with lagoon expertise.

Memos from EPA indicate that other states consider 20 years an appropriate period of time to determine if a water quality problem is temporary and correctable, and Montana has been using this timeframe as a guideline for nutrient pollution as well. DEQ has repeatedly stated that if the 20 year variance period passes and the nutrient standards are still too expensive to meet, there are two options. (1) A change could be made to 75-5-313, MCA to allow the continuation of the variance system beyond the first 20 years. EPA has indicated they do not have issue with this approach, and would likely prefer it to removing or lowering a waterbody's beneficial uses. DEQ believes this pathway would be taken if it appeared at that time that achievability of the numeric nutrient standards (via point and/or nonpoint improvements) was in the works, or clearly on the horizon. (2) If after 20 years it appears that affordable nutrient-removal technology simply is not in the works for most Permittees or, more likely, if there remain specific communities for whom nutrient removal technologies remain too expensive and standards are not being met, DEQ's Water Quality Standards Section is empowered to lower the beneficial use of a waterbody. A stream, for example, could be reclassified to reflect the beneficial uses it can actually support. A use attainability analysis would be required by EPA and accompanying these changes would be nutrient standards that reflect what can actually be achieved in the stream.

Table 1. Summary of Tina's Edits

Comment #	Topic	Response	Action Needed
3	Adaptive Management	Split apart the comments to make TMDL significance a separate comment	
4	Significance	I consolidated responses from page 1 and page X	
7	EPA's 1995 guidance for private sector dischargers	Added 1 sentence saying that EPA's guidance is one option for private sector analysis	The guidelines don't currently indicate that other options can be pursued. You could delete my sentence or just add a sentence to DEQ's Guidelines doc on individual variances
8	Nondeg	Consolidated comments	
10	Economic Analysis	Modified language	Pls review to make sure the response is acceptable
11	Biological confirmation	Modified language	Pls review to make sure the response is acceptable
15	Private sector finances	Slight edits to response	
16	Nondeg	Inserted general response re. ongoing collaboration	Pls review
18	Drumlummon	DEQ's permitting group to revise	
21	Adaptive Management	Modified to request additional clarification from the League on what is intended with "adaptive management"	Pls review to make sure the response is acceptable

To make sure you are ok with the responses that pertain specifically to the League of Cities and Towns comments, I summarized the comments in the table below.

Table 2. League of Cities and Towns Comments

Issue	Comment #
Bioconfirmation	11
Adaptive management	3, 21
Permitting	12
TMDL (significance)	4
